

WHAT IS CLAIMED IS:

1. A fiber laser apparatus comprising:
a plurality of semiconductor lasers; and
an optical fiber which beams emitted from said
5 plurality of semiconductor lasers are caused to enter,
said plurality of semiconductor lasers being so
arranged that the emitted beams are almost parallel to
one another in a slow-axis direction and the incidence
angles of the emitted beams to the optical fiber differ
10 from one another in a fast-axis direction.
2. The fiber laser apparatus according to
claim 1, wherein the value of (active layer width in
slow-axis direction) \times [sin (emission divergence angle
in slow-direction angle)] of each of the semiconductor
15 lasers is set equal to or smaller than the value of
(core diameter) \times (numerical aperture) of the optical
fiber.
3. The fiber laser apparatus according to
claim 1, wherein the sum of the values of (active layer
20 width in fast-axis direction) \times [sin (emission
divergence angle in fast-direction angle)] of said
plurality of semiconductor lasers is set equal to or
smaller than the value of (core diameter) \times (numerical
aperture) of the optical fiber.
- 25 4. The fiber laser apparatus according to
claim 1, further comprising a mirror which changes the
optical path of at least one of the beams emitted from

said plurality of semiconductor lasers and causes the beam to enter the optical fiber.

5 5. The fiber laser apparatus according to claim 1, wherein the beams emitted from said plurality of semiconductor lasers are caused to enter the optical fiber with a specific angle difference between their optical axes of the beams in the fast-axis direction.